

AMENDMENTS TO THE CLAIMS

1. **(Currently amended)** A sound system comprising:

at least two loudspeakers forming a first pair, and

at least one signal processing device,

wherein the at least one signal processing device is controlled by two input signals and produces respective control signals that are applied to at least two of the loudspeakers, and

wherein the signal processing device phase-shifts the input signals independently of frequency over at least a portion of a frequency range and weights the input signals differently with respect to amplitude and phase, and the control signals it produces are equal to respective sums of the input signals thus weighted, so that a radiation characteristic of the pair of loudspeakers depends on the weighting of the input signals.

2. (Previously presented) Sound system according to claim 1, wherein the at least one signal processing device includes:

first and second adder units, each adder unit having first and second inputs and an output connected to one loudspeaker of the pair of loudspeakers,

at least two first phase shifters and at least two first coefficient units, with a respective first phase shifter connected in series with a respective first

coefficient unit, and

at least two second phase shifters and at least two second coefficient units, with a respective second phase shifter connected in series with a respective second coefficient unit,

wherein a first of the two input signals is supplied to the first input of the first adder unit through a first phase shifter and a first coefficient unit and to the second input of the second adder unit through a second phase shifter and a second coefficient unit, and

wherein the other input signal is supplied to the first input of the second adder unit through another first phase shifter and another first coefficient unit and to the second input of the first adder unit through another second phase shifter and another second coefficient unit.

3. (Original) Sound system according to claim 2, wherein each of the first phase shifters and each of the second phase shifters have respective identical phase shifts, and wherein each of the first coefficient units and each of the second coefficient units each have respective identical attenuation/amplification coefficients.
4. (Original) Sound system according to claim 2, wherein the first and second phase shifters produce frequency-independent phase shifts.
5. (Original) Sound system according to claim 1, wherein the phase can be shifted

- and the phase shift is adjustable.
6. (Previously presented) Sound system according to claim 1, further comprising two additional loudspeakers forming a second pair, wherein the first pair of loudspeakers is arranged between the second pair of loudspeakers and a main radiation direction of a loudspeaker of the first pair is adjusted so as to point away from a main radiation direction of the other loudspeaker of the first pair towards a respective loudspeaker of the second pair of loudspeakers at a predetermined angle with respect to a direction perpendicular to an imaginary line connecting the four loudspeakers.
 7. (Previously presented) Sound system according to claim 6, wherein a main radiation direction of a loudspeaker of the second pair of loudspeakers is oriented in a direction towards the first pair of loudspeakers at a predetermined angle with respect to the perpendicular direction.
 8. (Previously presented) Sound system according to claim 1, further comprising two additional loudspeakers forming a second pair, wherein the first pair of loudspeakers is arranged next to the second pair of loudspeakers, and a main radiation direction of a loudspeaker of the first pair is adjusted so as to point towards a main radiation direction of the other loudspeaker of the first pair at a predetermined angle with respect to a direction perpendicular to an imaginary line connecting the four loudspeakers, and a main radiation direction of a loudspeaker of the second pair is adjusted so as to point towards a main radiation direction of

- the other loudspeaker of the second pair at a predetermined angle with respect to the perpendicular direction.
9. (Previously presented) Sound system according to claim 1, further comprising two additional loudspeakers and an additional signal processing device which produces control signals that are applied to at least the two additional loudspeakers.
10. **(Currently amended)** A sound system comprising:
- a plurality of loudspeakers, with at least several of the loudspeakers arranged in pairs, and
- at least one signal processing device,
- wherein the at least one signal processing device is controlled by two input signals and produces respective control signals that are applied to at least one pair of loudspeakers,
- wherein the signal processing device phase-shifts the input signals independently of frequency over at least a portion of a frequency range and weights input signals differently with respect to amplitude and phase, and the control signals it produces are equal to respective sums of the input signals thus weighted, so that a radiation characteristic of the at least one pair of loudspeakers depends on the weighting of the input signals.
11. **(Currently amended)** A method of producing a sound pattern, comprising:

providing at least four loudspeakers associated in pairs,

processing stereophonic input signals to produce weighted input signals by adjusting an amplitude and a phase of respective channels of the stereophonic input signals, wherein the phase is adjusted independent of a sound frequency over at least a portion of a frequency range, and

adding the weighted input signals to produce control signals for respective pairs of the loudspeakers,

wherein a radiation characteristic of the pair of loudspeakers depends on the weighting of the input signals.

12. (Canceled)
13. **(Currently amended)** The method of claim 11[[12]], wherein the phase is adjusted so as to be independent of the sound frequency over the entire frequency range of the sound frequency.
14. **(New)** A sound system comprising:
 - at least two loudspeakers forming a first pair,
 - at least two additional loudspeakers forming a second pair, and
 - at least one signal processing device,wherein the first pair of loudspeakers is arranged between the second pair

of loudspeakers and a main radiation direction of a loudspeaker of the first pair is adjusted so as to point away from a main radiation direction of the other loudspeaker of the first pair towards a respective loudspeaker of the second pair of loudspeakers at a predetermined angle with respect to a direction perpendicular to an imaginary line connecting the four loudspeakers,

wherein the at least one signal processing device is controlled by two input signals and produces respective control signals that are applied to at least two of the loudspeakers, and

wherein the signal processing device weights the input signals differently with respect to amplitude and phase, and the control signals it produces are equal to respective sums of the input signals thus weighted, so that a radiation characteristic of the pair of loudspeakers depends on the weighting of the input signals.

15. (New) The sound system of claim 14, wherein a main radiation direction of a loudspeaker of the second pair of loudspeakers is oriented in a direction towards the first pair of loudspeakers at a predetermined angle with respect to the perpendicular direction.

16. (New) A sound system comprising:

at least two loudspeakers forming a first pair,

at least two additional loudspeakers forming a second pair, and

at least one signal processing device,

wherein the first pair of loudspeakers is arranged next to the second pair of loudspeakers, and a main radiation direction of a loudspeaker of the first pair is adjusted so as to point towards a main radiation direction of the other loudspeaker of the first pair at a predetermined angle with respect to a direction perpendicular to an imaginary line connecting the four loudspeakers, and a main radiation direction of a loudspeaker of the second pair is adjusted so as to point towards a main radiation direction of the other loudspeaker of the second pair at a predetermined angle with respect to the perpendicular direction,

wherein the at least one signal processing device is controlled by two input signals and produces respective control signals that are applied to at least two of the loudspeakers, and

wherein the signal processing device weights the input signals differently with respect to amplitude and phase, and the control signals it produces are equal to respective sums of the input signals thus weighted, so that a radiation characteristic of the pair of loudspeakers depends on the weighting of the input signals.